

No.857C

LA7806

B/W TV Synchronization, Deflection Circuit

The LA7806 is a multifunctional integrated circuit which is based on the internal circuit of the LA7800, incorporates various functions required for synchronization and deflection circuits of monochromatic television set, and operates on line voltage or from battery. This IC was so designed as to streamline the set by making the device more compact (DIP-16) and reducing the number of parts.

The LA7806 differs from the LA7800 in the following points.

- . No X-ray protection circuit is used.
- . The ground pins for horizontal and vertical are provided separately.
- . No horizontal regulator is used.
- . Synchronizing separation output is for vertical only.

Functions

- . Synchro separator
- . Horizontal AFC
- . Vertical driver

- . Horizontal oscillator
- . Vertical oscillator
- . Vertical blanking pulse making

Features

- . Multifunction and small-size (DIP-16).
- . Minimum number of parts required.
- . Horizontal and vertical oscillators being stable to variation of ambient temperature and supply voltage owing to small warming-up drift.
- . Small variation of horizontal oscillation frequency.
- . Good linearity and interlace owing to DC bias at vertical output stage being sampling controlled within retrace time.
- . Vertical blanking pulse width being freely set up according to peripheral parts.

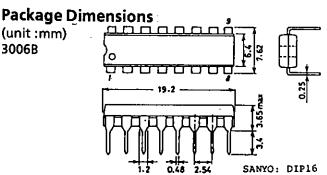
Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V ₁₂ , V ₁₅	14	V
Allowable Power Dissipation	V ₁₂ ,V ₁₅ Pdmax Ta=60°C	450	mW
Operating Temperature	Topr	-20 to +85	°C
Storage Temperature	Tstg	-55 to +125	°C

Recommended Operating Condition at Ta=25°C

Recommended Supply Voltage V₁₂, V₁₅

unit 12 V



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perating Characteristics at Ta=25°C,	⁷ 12 ⁼⁷ 15 ⁼¹²⁷		typ max	unit
V _{CC12} current bissipation	^I CC12	10.0	19.0	mA
V _{CC15} Current Dissipation	ICC 15	6.0	11.0	mA
Vertical Frequency Pull-in Range		9.0	11.0	Hz
Vertical Free-running Frequency f	, f, center 55Hz	50	60	Hz
Supply Voltage Dependence of	ν ₁₂ =12±1 ν ,	-0.5	0.5	Hz
Vertical Frequency	55Hz at 12V			
Temperature Characteristic of	Ta=-10 to +60°C	-0:028	0.028	Hz/OC
Vertical Frequency				··
Vertical Driver Amplification		4.0	7 0	times
Factor		7.0	1.0	OZMOD.
Horizontal Free-Running Frequency f	. f., center 15 750k	Hg _750	750	Hz
Supply Voltage Dependence of	V ₁₅ =12 [±] 1V,	-50	50	нz Нz
Horizontal Frequency	15.750kHz at 12V	-50	50	пz
Temperature Characteristic of	Ta=-10 to +60°C	- h	o 1:	·· (Oc
Horizontal Frequency	1a==10 to +60°C	-3.4	3.4	Hz/ ^O C
	A 45 550 V	· .	- - -	
Horizontal Output Pulse Width	f _H =15.750kHz	21.5	26.5	μs
Horizontal Output Drive Current		4.2	7.8	mA
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	600	Pd	max - Ta	
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	Allowable Power Dissipation, Pdmax			
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* : Polyester-polypropylene film cap	acitor Uni	t (resistanc	e:Ω, capacit	ance:F)

Note)

- 1. The vertical output circuit is shown by the basic circuit.
- 2. The peripheral parts at pin 8 should be changed in accordance with the Ver. Out circuit conditions.
- 3. The limiting resistor (220 Ω : 1Vpp) at pin 14 should be changed in proportion to the magnitude of the input video signal.
- 4. In the time constant circuit (120k Ω 4.7uF) at pin 14, the time constant should be changed by changing the resistance value in accordance with the DC level of the input video signal and then by changing the capacitance value.

Peripheral parts at pin 8 (other applications)

	R1	C1	R2	C2
Line operate	220kΩ	0.01µF	68ka	0.068µF
Battery drive (pump-up)	220ka	0.0033µF	82ka	0.068µF

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